



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

April 11, 2013

Colonel Paul Hutchinson, Commander
NH Air National Guard
157th Air Refueling Wing
302 Newmarket Street
Newington, NH 03803

Dear Colonel Hutchinson:

As you may know, on May 16, 2012 and May 21-22, 2012, the Environmental Protection Agency (EPA) conducted multi-media Federal Facility inspections at the NH Air National Guard in Newington, NH.

Enclosed are the highlights and the detailed inspection reports under the Clean ^{Water} Air Act (CAA) and the Resource Conservation and Recovery Act (RCRA). ^W

If you or your staff has any questions concerning the EPA inspections, please do not hesitate to call me at 617-918-1805.

Sincerely,

A handwritten signature in cursive script, appearing to read "Anne H. Fenn".

Anne H. Fenn
Federal Facility Program Manager
RCRA, EPCRA and Federal Programs
Office of Environmental Stewardship

cc: Andrew Smith, NH Air National Guard
John Duclos, NH DES

EPA – NEW ENGLAND MULTI-MEDIA INSPECTION HIGHLIGHTS

Pease Air National Guard
157th Air Refueling Wing
302 Newmarket Street
Newington, NH 03803

Date of Inspection: May 16, 2012 – Clean Water Act - Spill Prevention, Control and Countermeasure (SPCC) and Facility Response Plan (FRP)

May 21-22, 2012 – Resource Conservation and Recovery Act (RCRA)

Areas Inspected: Clean Water Act – SPCC/FRP
Resource Conservation and Recovery Act

I. Facility Response Plan Inspection

- Pease Air National Guard Base is a borderline Facility Response Plan (FRP) facility. The FRP is very organized and complete. Most of the deficiencies are centered around the written confirmation of an Oil Spill Removal Organization (OSRO). The OSRO is important because it will provide the necessary oil recovery resources such as 1000 feet of containment boom.
- The Emergency Response Action Plan was excellent. Facility needs to add a copy of the facility plan and drainage map.
- The horizontal range calculation for discharge needs to be added to the vulnerability analysis.

II. Spill Prevention, Control and Countermeasure Plan Inspection

- Under NH law, the facility must have the Spill Prevention, Control and Countermeasure Plan certified by a New Hampshire licensed Professional Engineer.
- The facility needs minor adjustments to the site diagram. Some arrows pointed in wrong place and should list secondary containment and volume, location of bulk hazmat and emergency response equipment on diagram. Secondary containment of two large JP8 tanks is adequate to contain both containers but they are not reflected on the map.
- The facility has adequate secondary containment for oil storage, except for piping to

the aircraft refueling rack.

- The mobile refuelers are located in bulk POL area and the drainage is going into a storm drain. Storm drains between rack and mobile refueler parking are not drained to the OWS. The facility needs to change this configuration to prevent spills into non onsite wastewater system.

III. Resource Conservation and Recovery Act Inspection

- The facility had one open 8 ft. cardboard container with 11 universal waste lamps located in the Universal Waste Storage Shed. The container was then closed and taped during the inspection.
- The facility had one aerosol can marked 3M Foam Fast 74 Classic Spray Adhesive in a trash can in the Vehicle Maintenance Area (Building 157). The MSDS shows that 3M Foam Fast contains acetone, dimethyl ether, pentane and naphthol spirits.
- The facility puts their off-spec JP 8 fuel in the 1,000 gallon tank labeled "Used Oil for Recycling" located in the Ground Fuels Area. The inspection team requested the sampling results from this tank.



United States Environmental Protection Agency
Region I
5 Post Office Square, Suite 100
Boston, MA 02109-3912

RCRA Inspection Report

Date: May 31, 2012

From: Linda Brolin, Environmental Engineer
RCRA, EPCRA, and Federal Programs Unit

Thru: Lisa Papetti, Senior Enforcement Coordinator
RCRA, EPCRA, and Federal Programs Unit

To: RCRA Enforcement File

Subject: Compliance Evaluation Inspection (CEI) of NH Air National Guard, Newington, NH

I. GENERAL INFORMATION

- A. Facility Name:
NH Air National Guard
157th Air Refueling Wing
302 Newmarket Street
Newington, NH 03803
- B. Responsible Official:
Andrew Smith, Environmental Manager, 157 ARW
NH Air National Guard ANG
302 Newmarket Street
Newington, NH 03803-0157
andrew.smith@nhpeas.ang.af.mil
603-430-2336
- C. Date of Inspection:
May 21 - 22, 2012
- D. Purpose of Inspection:
RCRA Compliance Evaluation Inspection (CEI) as an element of a federal facility multimedia inspection
- E. Persons Participated in the Inspection:
Linda Brolin, USEPA, RCRA, EPCRA, and Federal Programs Unit
Donald MacLeod, USEPA, RCRA, EPCRA, and Federal Programs Unit
Anne Fenn, USEPA, RCRA, EPCRA, and Federal Programs Unit

David Nylund, Environmental Manager
Andrew Smith, Environmental Manager

II. RCRA Reporting/Information Requirements

- A. Facility Identification Number:
NHD8572824847
- B. Type of Operation:
Federal Small Quantity Generator (SQG)
New Hampshire Full Quantity Generator (FQG)
- C. Date of Notification of Hazardous Waste Activity:
8/21/1990, 04/11/1991, 11/22/1993

III. General Facility Description

NH ANG operates the 157th Air Refueling Wing (157 ARW) located at Pease Air National Guard Base, which is part of the Pease International Tradeport in Newington, New Hampshire. According to their website, the 157th Air Refueling Wing mission is to provide support for United States Military aircraft by offloading fuel to receiver aircraft during refueling military and or relief missions. The 157 ARW flies and maintains KC-135 aerial refueling tanker to support its mission. The major support operations performed include: aircraft fueling, aircraft deicing, aircraft maintenance, AGE maintenance, vehicle maintenance, vehicle fueling and facilities maintenance. There are about 32 buildings at the facility located on 220 acres. See Attachment 1 for the installation map. At the time of the inspection, Mr. Smith stated that the facility has approximately 450 full-time military personnel that work the core hours of 7:00 a.m. to 4:30 p.m.

According to David Nylund, the 157 ARW generates the following waste: waste paint, waste fuel absorbents, waste fuel filters/hoses, waste fuels, waste bead blast media, waste parts cleaning filter/rags, waste parts cleaning solvent, waste sealants/acheseive, used oil for recycle, used antifreeze, waste respirator cartridges, waste gun cleaning patches/rags, lead contaminated sand, waste fuel icing inhibitor, waste silver recovery, waste rags with MEK, waste solder, waste mercury debris broken thermometers, used fixer and used developer and fluorescent lamps, batteries, and broken fluorescent lamps. Waste codes include the following: D001, D002, D006, D007, D008, D009, D011, D018, D035, F003, F005, and MA98.

According to David Nylund, the facility has one less-than 180-day storage area (near Building 253), 24 Satellite Accumulation Areas (SAAs), and one universal waste storage area (Building 145). See Attachment 2 for the Hazardous Waste Generation Points. There are 39 Satellite Accumulation Point (SAP) managers. The waste hauler is a DRMO contractor. Frank Martin is the point of contact with the DRMO contractor who comes to Pease Air National Guard every 60 days.

At the time of the inspection, NH ANG was notified in RCRA Rep as a small quantity generator and a New Hampshire full quantity generator.

IV. Inspection and Enforcement History (last 5 years)

Informal written notification NH DES 10/09/2007

V. Physical Inspection

Linda Brolin, Donald MacLeod, and Anne Fenn (the "inspection team") arrived at the facility at approximately 9:00 a.m. on May 21, 2012. The in-brief for the multi-media federal facility inspection was given by Anne Fenn. See Attachment 3 for the complete list of attendees. Upon meeting David Nylund and Andrew Smith, the inspection team presented their credentials and business cards and explained the purpose of the inspection. Inspectors were in the presence of facility personnel at all times during the inspection except for short periods of time for records review. Photographs were taken during the inspection. The following describes the observations made during the physical inspection.

The inspection team inspected the following Buildings:

Building 145N - Communication Maintenance, Civil Engineering

Building 151 - Civil Engineering

Building 146 - Small Arms Range

Building 149 - Mobility

Building 157- Vehicle Maintenance

Building 168 - Fuel Management, CE Liquid Fuels Maintenance

Building 243- Fire Department

Building 244 - Security Forces, Avionics

Building 245- CE Readiness Flight

Building 247- 260th ATC

Building 249- Aerospace Ground Equipment (AGE) Shop

Building 253 - Fuel Cell Maintenance

Building 254 - R & R Shop, Pneudraulics, Phase Dock, Structural Repair, Jet Engine Repair, Metals Technology

Building 256 - Life Support Survival Equipment

The inspection team inspected the central accumulation area. The containers were all closed, labeled appropriately, and dated, unless otherwise noted. The waste stored matched the waste observed during the physical tour.

Central Accumulation Area (See Photo # 1 and #2)

Tom Johnson is the primary point of contact for the HWSA. The main hazardous waste accumulation area (HWSA) is located northwest of Building 253 and consists of one small heated building (Building #3) and two explosion-proof sheds (Shed # 1 and Shed # 2). The HWSA has the following signs posted: "Danger Hazardous Waste Storage Flammable", "Danger Hazardous Waste Storage", "No Smoking", "Danger No Smoking matches or open flame", and "Danger Flammable Material Storage". The area has a spill kit and a fire extinguisher. The phone has an emergency phone contact list posted. Shed # 2 was empty at the time of the inspection. The inspection team observed the following closed containers in the Shed # 1 and Building # 3:

Table 1 - Flammable Shed # 1

Size	Label/Marking	Date
1 55-gallon	Hazardous waste, JP-8 filters, D018	5/17/2012
1 5 gallon	Universal waste, waste lithium batteries	12/14/2011

Table 2 - Building # 3

Size	Label/Marking	Date
5-gallon	Universal waste, waste lithium batteries	12/14/2011

The inspection team inspected the following SAAs. The containers were all closed, labeled, with contents, hazards, unless otherwise noted. The containers sizes were all 55-gallons or less. The weekly inspection logs were posted and located at each SAA. All inspections were conducted weekly.

Table 3 – Satellite Accumulation Areas (SAAs)

Building	SAA Manager	Container	Label/Marking/Waste Accumulated	Photo #
254	Dave Bartlett	2-55-gallon	Used oil for recycling, hydraulic fluid and engine oil,	
		1-5-gallon	Hazardous waste, JP8 absorbents, D018	
254 Structural Maintenance Shop	Mike Paquin	1 5-gallon	Hazardous waste, sealant waste (D007)	
42B Aquamiser/PMB Room		1 55-gallon	Hazardous waste, plastic media waste (D006, D007)	
Paint Booth		1 30-gallon	Hazardous waste polyurethane paint waste (D001);	3
		1-15-gallon	Hazardous waste, polyurethane thinner waste (D005)	
		1 3-gallon	Hazardous waste, oil-polyurethane paint waste (D001, D007)	
38 Weld Shop		1 55-gallon	Hazardous waste, glass bead blast media (D006, D007)	
253 Fuel Cell		1 55-gallon	Hazardous waste, fuel rags (D018); Sealant (D007)	
253 Fuel Cell ¹		1 8-gallon	Hazardous waste, MEK rags (F005)	
		1 5-gallon	Hazardous waste sealant (D007)	
256 Air Crew Flight Equipment ²		1 1-gallon	Waste brushes/adhesives with MEK (F005);	

¹ Fuel systems repair is done in this area. The facility uses MEK to clean the rubber bladders. Sealant is used to seal metal fuel compartments within the wings of the aircraft.

² Air Crew Flight Equipment is where the facility patches life rafts with a glue that contains MEK.

		1 5-gallon	Universal waste, lithium batteries, 5/4/2012	
254 Pneudraulics Shop ³	Mike Kellerman	1 10-gallon	Used hydraulic oil for recycle	
		1 5-gallon	Used oil for recycling for hydraulic soaked rags	
		1 5-gallon	Hazardous waste, JP8 soaked rags (D018)	
		1 5-gallon	Hazardous waste, excess sealant (D007)	
254 Electroenvironmental Shop		1 four ounce	Used solder for reuse The container was empty at the time of the inspection.	
145 Civil Engineering Universal waste Storage shed ⁴		1 55-gallon	Hazardous waste, broken fluorescent lamps, D009	
		1 30-gallon	Universal waste batteries, 2/7/2012	
		1 20-gallon	Universal waste lamps, 2/7/2012	
		1 cardboard box	Universal waste batteries, 10/1/2011	
		1 8ft. box, open ⁵	Universal waste lamps, 11/4/2011	
		1 2ft. cylindrical container	Universal waste lamps, 10/12/2011	
		3 4ft. cylindrical containers	Universal waste lamps, 4/3/2012, 3/8/2012, 10/12/2011	
		1 cardboard box	Universal waste, mercury thermometer, 10/17/2011	
145 N ADPE short term universal waste storage		4 boxes	Universal waste, sealed lead acid batteries, 5/4/2012, 4/6/2012, 4/6/2012, 5/4/2012	
		1 box	Universal waste, used batteries, 2/1/2012	
157 Vehicle Maintenance ⁶		1 55-gallon	Hazardous waste, JP-8 filters, D018	

³ The Pneudraulics shop maintains hydraulic systems and inflight fueling systems. There was a closed parts washer, System One PD 680 748 II in this shop.

⁴ The universal storage shed was locked and had the following signs: "Danger Hazardous Waste Storage", "No Smoking, Authorized Personnel Only"

⁵ The box containing universal waste lamps, dated 11/04/2011, was closed at the time of the inspection.

		1 55-gallon	JP-8 recyclable	
		2 55-gallon	Used antifreeze only for recycle	
Building 168 Pump House	TSgt Ian Harper	1 55-gallon	Hazardous waste, waste fuel (D001, D018)	
		1 55-gallon	Hazardous waste de-icing (D018)	
		1 55-gallon	Hazardous waste, waste water (D018, D001)	
		1 55-gallon	Hazardous waste, absorbent, JP-8 (D018)	
249 Air Ground Equipment Shop (AGE)		1 55-gallon	with closed drum funnel in bung, labeled, "Used antifreeze only for recycling"	
		1 8-gallon, empty	Hazardous waste fuel soaked pig matting.	
		1 1-gallon, empty	Hazardous waste, sludge from system one machine	
		1 300-gallon	double-walled tank, with locked lid, labeled, "Used oil for recycling";	
Building 244 Security Forces ⁷	Neault	1 30-gallon	Hazardous waste, gun cleaning rags/debris, F002, D008	
		1 6-gallon	Universal waste batteries, all types, dated 10/1/2010	
Building 244 NDI Lab	Huntington	1 3 ½-gallon	Hazardous waste, used fixer solution D011	
		1 3-gallon tote	Hazardous waste, lead screens, D008	
Avionics		1 1-gallon	Hazardous waste, lead solder, D008	
Building 146 Combat Arms Training and Maintenance ⁸		1 6-gallon safety can	Hazardous waste, gun cleaning rags/debris, F002, D008	
Ground Fuels Area		1 1,000-	Used oil for recycling ⁹	

⁶ The inspection team observed marked, 3M Foam Fast 74 Classic Spray Adhesive in a trash can in Building 157, Vehicle Maintenance Area. The MSDS shows that 3M Foam Fast contains acetone, dimethyl ether, pentane and naphthol spirits. See Attachment 5. Dave Nylund stated that there was a little bit left in the can, less than one ounce.

⁷ At the time of the inspection, there was a closed parts washer (IT-48WC Inland ATechnology 1 800 552-3100) that uses 100% solvent located in Building 244 Security Forces. This parts washer is managed in-house.

⁸ The NHANG uses frangible rounds in which the tip is compressed copper shavings and there is no lead. The facility tested the soil/sand at the back stop area. The brass casings are recycled.

⁹ Andrew Smith stated that JP8 and water mixtures, off spec JP8 are put into this used oil tank usually before shipping off to a fuel recycle facility. According to David Nylund, the facility would bring the off-spec JP8 would

		gallon		
Building 254 Jet Engine Repair ¹⁰		1 6-gallon	Hazardous waste fuel rags, JP8, D018	

VI. Records Review

Manifest records, inspection records and training records were requested for review.

Hazardous Waste Manifest Records:

The manifest review consisted of a sampling of 2011 and 2012 manifests. The manifests reviewed appeared current, complete and timely, with accurate information. The wastes documented in the records corresponded to those observed during the inspection. David Nylund and Andrew Smith signed the waste manifests. Waste codes included: D001, D006, D007, D008, D018, and MA98.

Inspection Records

The ANG had a written inspection program and schedule at the time of the inspection. Inspection logs documented weekly inspections of the HWSA. Inspections were conducted weekly for the period reviewed and notes were made regarding deficiencies and measures implemented to make corrections. Each SAA maintains the inspection logs, which were complete and the inspections were conducted weekly.

Training Records

At the time of the inspection, the facility provided documentation of RCRA Hazardous Waste training (NH DES Hazardous Waste Certificate Training) for the following employees David Nylund and Andrew Smith. The in-house trainer is David Nylund, who trains the SAA managers and alternates. See Attachment 6 - Section 7 of the Contingency Plan.

Contingency Plan

The Contingency Plan issued for the 157th Air Refueling Wing, New Hampshire Air National Guard, Pease Air National Guard Base, Newington, NH dated December 2007 and amended 14 September 2010, contained the following information: list of emergency telephone numbers, response procedures, arrangements with the state and local agencies, emergency equipment, evacuation plan, evacuation routes, preparedness and spill prevention, management of used petroleum products, and pollution prevention. The Contingency Plan stated that copies of the Contingency Plan were distributed to the New Hampshire State Police, Portsmouth Fire and Police Departments, City of Newington Fire Department, Rockingham County Sheriff's Office, New Hampshire Emergency Management Agency and the Local Emergency Planning Committees in Portsmouth and Newington, NH, and Portsmouth Regional Hospital. Chief Bill Hardekopf, Base Fire Chief is the Primary Emergency Coordinator, and Col. Brian Elbert, Support Group Commander is the Alternate Emergency Coordinator. See Attachment 6.

go into this 1,000 gallon tank, labeled, "Used oil for recycling". See Attachment 4 for emails between Andrew Smith and NH DES concerning this practice.

¹⁰ At the time of the inspection, four (4) fuel filters from jet engines were actively draining on fuel filter drain bucket and the metal will then be recycled. The fuel from the filters is put back in the tanks, as good fuel.

VII. Out-Brief

An out-brief was conducted at the conclusion of the inspection. The following people attended the outbrief:

Glen Wass, Chief of Safety and Risk Management
Brian Elbert, Mission Support Group Commander
Aaron McCarthy, Wing Executive Officer
David Nylund, 157th ARW EM Office
Andrew Smith, 157th ARW Environmental Manager
Linda Brolin, USEPA
Anne Fenn, USEPA

See Attachment 7 for the sign-out sheet for a complete listing of personnel that attended the outbrief.

The following issues were discussed during the outbrief:

One 8-ft. open cardboard container, with 11 universal waste lamps in an open container, located in the Universal Waste Storage Shed. The container was closed and taped at the time of the inspection.

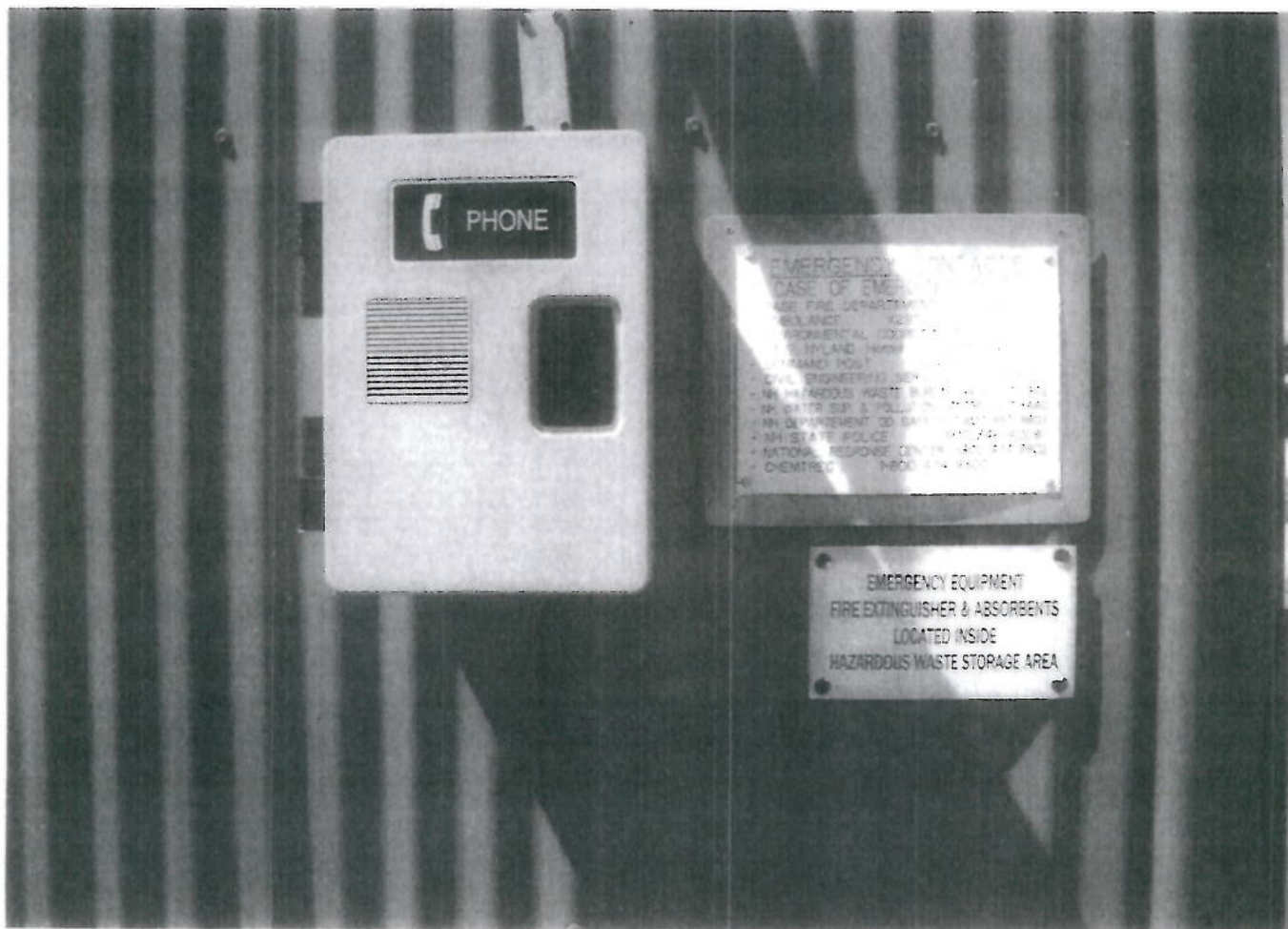
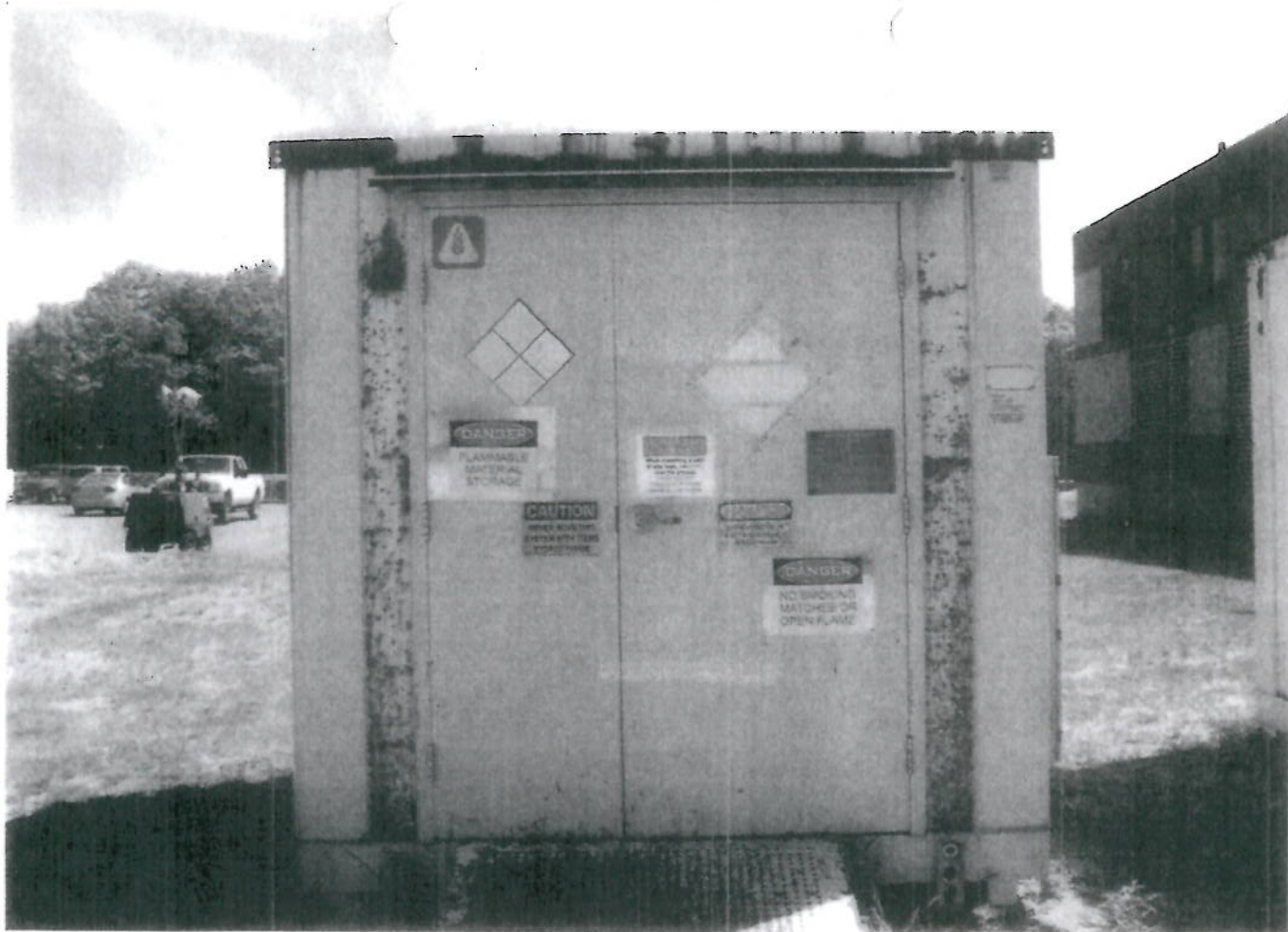
There was one aerosol can, marked, 3M Foam Fast 74 Classic Spray Adhesive in a trash can in the Vehicle Maintenance Area (Building 157). The MSDS shows that 3M Foam Fast contains acetone, dimethyl ether, pentane and naphthol spirits.

According to David Nylund and Andrew Smith, the off- spec JP 8 would be put in the 1,000 gallon tank labeled, "Used oil for recycling", located in the Ground Fuels Area. The inspection team requested the sampling results for this tank.

Before leaving, the inspection team summarized the enforcement tools available to EPA, including informal responses and formal responses with penalties.

By emails from Tim Noury, Used Oil Program NH DES to Andrew Smith, Tim stated that "JP-8 is not used oil and as such does not qualify as a Used Oil for Recycle, but could be potentially be mixed with used oil under scenarios previously discussed.." See Attachment 4.

Photographs





HAZARDOUS WASTE

ACCUMULATION

START DATE _____

CONTENTS _____

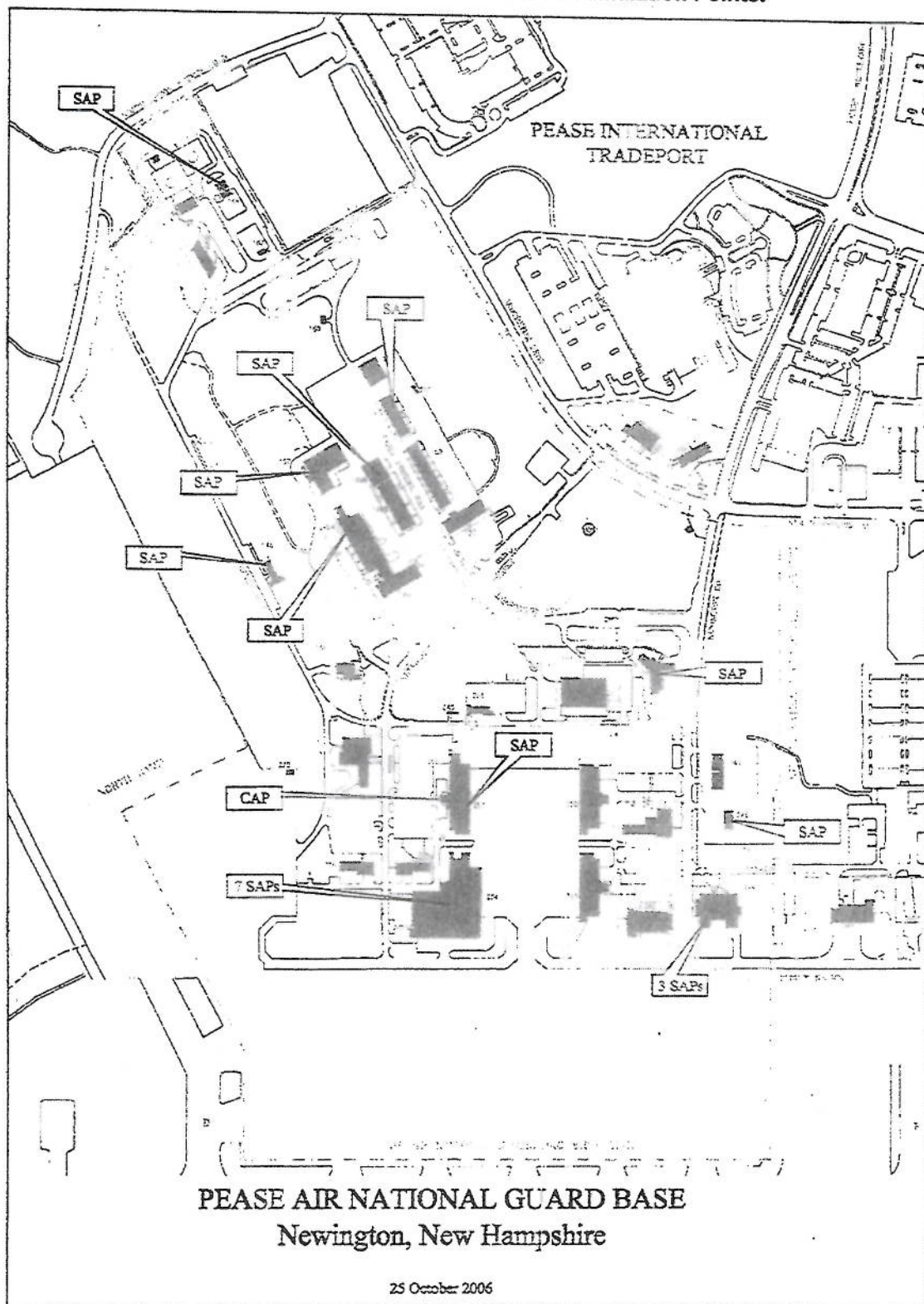
HANDLE WITH CARE!
CONTAINS HAZARDOUS OR TOXIC WASTES

Reorder No. 623

Lab Safety Supply Inc.

Attachment 1

Figure 2-1
Location of Base Hazardous Waste Accumulation Points.



Attachment 2

Table 2-1
Hazardous Waste Generation Points

Location (Building)	Organization	Point-of-Contact	Phone Number (Extension)
Building 145N	Communication Maintenance	Stan Norton Dave Camire	x2522 x2501
Buildings 145N & 151	Civil Engineering	Elana Prato Dick O'Brien	x2377 x2466
Building 146	Small Arms Range	Craig Moody	x2611
Building 149	Mobility	Mark Rasmussen	x3449
Building 157	Vehicle Maintenance	Earl Dally Joseph Jeddrey	x3430 x2550
Building 165	Fuels Management	Stacy Griffiths John Schleiman	x3372
Building 165	CE Liquid Fuels Maintenance	Mark Rix Ian Harper	x3381
Building 243	Fire Department	Shift Supervisor	X2700
Building 244	Avionics	George McIntyre	x2480
Building 244	Security Forces	Ray Martin Robert Gibson	x2601
Building 244	NDI Lab	Lynn Huntington	x2591
Building 245	CE Readiness Flight	Keith Downs	x2742
Building 247	260 th ATC	Mike Verjoolen Derek Healey	x3221 x3182
Building 249	AGE Shop	Kevin Carter Nick Stack	x3385
Building 253	Fuel Cell Maintenance	Mark Lebel Joel Larose	x3391
Building 254	R & R Shop	Shane Burnham Bob Sawyer	x2385
Building 254	Pneudraulics	Dave Poirer Mike Kellerman	x2518
Building 254	Phase Dock	Tom Johnson Phil Carter	x2473 x2473
Building 254	Structural Repair	Frank Stevens Glen Patterson	x2436
Building 254	Jet Engine Repair	John McDowell	x2386
Building 254	Metals Technology	Brian Barber Lester Dickerman	x2512
Building 256	Life Support Survival Equipment	Dick Wacker Mike Bascom	x3178

2.3.2 Satellite Accumulation Points

A SAP is an area where waste is initially accumulated under the control of the shop supervisor of the generating activity. Regulations pertaining to the management of a SAP are contained in Env-Wm 509.03 (40 CFR 262.34). The maximum volume of HW permitted at a SAP is 55 gallons (or 1 quart of acute HW on the P-List (Env-Wm 402.04 [40 CFR 261.33])). Once either of these limits is exceeded, excess waste must be moved to a designated HW CAP within three days.

There are 18 SAPs for HW at the 157 ARW. If an additional SAP is needed, the area accumulation point manager and the EM will select a location at or near where the waste is generated. The SAPs are identified in Table 2-2 and shown on Figure 2-1.

Table 2-2
Hazardous Waste Satellite Accumulation Points

Location (Building)	Organization	Point-of-Contact	Phone Number (Extension)
Buildings 145N & 151	Civil Engineering	Elana Prato DWM, CE-Eng	x2377 x2476
Building 146	Small Arms Range	Chris Moody	x2611
Building 149	Mobility	Mark Rasnussen	x3449
Building 157	Vehicle Maintenance	Dan Deley Joseph Jeddrey	x3430 x2550
Building 165	Fuels Management	Stacy Griffiths John Schleiman	x3372
	CE Liquid Fuels Maintenance	Mark Rix Ian Harper	x3381
Building 244	Avionics	George McIntyre	x2480
Building 244	NDI Lab	Lynn Huntington	x2591
Building 244	Security Forces	Ray Martin Robert Gibson	x2601
Building 245	CE Readiness Flight	Keith Downs	x2742
Building 253	Fuel Cell Maintenance	Mark Lebel Joel Larose	x3391
Building 254	Jet Engine Repair	John McDowell	x2386
Building 254	Metals Technology	Brian Barber Lester Dickerman	x2512
Building 254	Phase Dock	Tom Johnson Pat Kiser	x2473
Building 254	Pneudraulics	Dave Poirer Mike Kellerman	x2518
Building 254	R & R Shop	Shane Burnham Bob Sawyer	x2385
Building 254	Structural Repair	Frank Stevens Glen Patterson	x2436
Building 254	U.S. Support Squadron Maintenance	Pat Weaver Mike Rogers	x2178

Attachment 3

DATE OF INSPECTION:
May 21, 2012

[illegible]

Attachment 4

RE: JP-8 Used Oil For Recycle Test - EPA Haz Waste Inspection

Noury, Tim

to:

SMITH, ANDREW R Civ USAF ANG 157 ARW/EM, Linda Brolin

11/15/2012 02:43 PM

Cc:

"WASS, GLEN R LtCol USAF ANG 157 WG/SE", "RIX, MARK R MSgt USAF ANG 157 CE/DEH", "Leedberg, Tod"

Hide Details

From: "Noury, Tim" <Timothy.Noury@des.nh.gov>

To: "SMITH, ANDREW R Civ USAF ANG 157 ARW/EM" <andrew.smith.7@ang.af.mil>, Linda Brolin/R1/USEPA/US@EPA

Cc: "WASS, GLEN R LtCol USAF ANG 157 WG/SE" <GLEN.WASS@ang.af.mil>, "RIX, MARK R MSgt USAF ANG 157 CE/DEH" <MARK.RIX@ang.af.mil>, "Leedberg, Tod" <Tod.Leedberg@des.nh.gov>

Hello Andrew,

For clarification, I did offer that it *does not seem to make economic sense* to pursue the idea of mixing JP-8 with Used Oil as described in your particular situation. It remains unclear what advantage, if any, there would be to mixing JP-8 with used oil rather than managing the wastes separately. It is recommended that you consult with your vendor and also consider the information offered in Fact Sheet #HW-WMD-30 & Fact Sheet #HW-WMD-11 (links follow).

http://des.nh.gov/organization/commissioner/bip/factsheets/hw_documents/hw-30.pdf
http://des.nh.gov/organization/commissioner/bip/factsheets/hw_documents/hw-11.pdf

However, ultimately it is up to the generator to choose the option most appropriate to their particular situation. JP-8 is not Used Oil, and as such does not qualify as a Used Oil for Recycle, but could *potentially* be mixed with used oil under scenarios previously discussed (*each scenario would require that a hazardous waste determination be performed on the JP-8 and that laboratory testing be performed on the mixture; in addition, a waiver would be required prior to mixing if the determination results showed the JP-8 to be hazardous for any reason*).

Please feel free to contact me with questions.

Sincerely,
Tim N.

Tim Noury, Used Oil Program (603-271-6424)
<http://des.nh.gov/organization/directory/water/eh/tim/noury/index.htm>

NH Dept. of Environmental Svc
WMD - ORCB - Used Oil Program
PO Box 95
Concord NH 03302-0095

-----Original Message-----

From: SMITH, ANDREW R Civ USAF ANG 157 ARW/EM [<mailto:andrew.smith.7@ang.af.mil>]
Sent: Thursday, November 15, 2012 8:56 AM
To: brolin.linda@epamail.epa.gov
Cc: Noury, Tim; WASS, GLEN R LtCol USAF ANG 157 WG/SE; RIX, MARK R MSgt USAF ANG 157 CE/DEH
Subject: RE: JP-8 Used Oil For Recycle Test - EPA Haz Waste Inspection

Linda,

We haven't generated any waste JP-8 since your visit so we have not done tested our JP-8.

Additional information: Although initially Tim Noury, the NHDES used oil for recycle program manager, stated we would initially need to test the JP-8 to identify whether or not the JP-8 could be included into the used oil for recycle program. Tim has since determined that JP-8 should not be disposed of under the Used Oil for recycle program. This was due to the "intent" of the used oil for recycle program, the intended definition of what "used oil" is, and that JP-8's characteristic of "ignitability" would deem it a hazardous waste and preclude it from the program. This determination was made following several email and phone discussions between Tim and myself as well as Tim speaking with the NHDES hazardous waste section a couple times.

Please let me know if you have any further questions.

//Signed//

Andy Smith
157ARW Environmental Manager
Pease Air National Guard Base, NH
Phone: DSN 852-2336, Comm 603-430-2336
Email: andrew.smith.7@ang.af.mil

-----Original Message-----

From: brolin.linda@epamail.epa.gov [<mailto:brolin.linda@epamail.epa.gov>]
Sent: Wednesday, November 14, 2012 4:45 PM
To: SMITH, ANDREW R Civ USAF ANG 157 ARW/EM
Subject: Re: JP-8 Used Oil For Recycle Test - EPA Haz Waste Inspection

Hi Andrew,

Did you ever do the sampling? If so I would like a copy of the test results. Thank you.

From: "SMITH, ANDREW R Civ USAF ANG 157 ARW/EM"
<andrew.smith.7@ang.af.mil>
To: "Noury, Tim" <Timothy.Noury@des.nh.gov>
Cc: "RIX, MARK R MSgt USAF ANG 157 CE/DEH" <MARK.RIX@ang.af.mil>, "Harper, Ian A TSgt USAF ANG 157 CES/DEMUL" <Ian.Harper.1@ang.af.mil>, Linda Brolin/R1/USEPA/US@EPA
Date: 06/15/2012 08:18 AM
Subject: JP-8 Used Oil For Recycle Test - EPA Haz Waste Inspection

Thanks Tim. As soon as we have a full 55 gallon drum of JP-8 we will have it tested.

//Signed//

Andy Smith
157ARW Environmental Manager
Pease Air National Guard Base, NH
Phone: DSN 852-2336, Comm 603-430-2336
Email: andrew.smith.7@ang.af.mil

-----Original Message-----

From: Noury, Tim [<mailto:Timothy.Noury@des.nh.gov>]
<<mailto:Timothy.Noury@des.nh.gov>>;]
Sent: Thursday, June 14, 2012 3:54 PM
To: SMITH, ANDREW R Civ USAF ANG 157 ARW/EM; Linda Brolin
Cc: Leedberg, Tod
Subject: RE: Answers to follow-up questions-EPA Haz Waste Inspection

Hello,

I spoke with the NH DES Hazardous Waste Management Bureau (HWMB) about this topic. Their feeling was that the mixture would need to undergo testing (reference Initial Used Oil Determination (Env-Hw 807.06 (b) (7, 8, & 9))). So, it would be prudent to take that as the understanding for the time being.

HWMB staff happen to be out at the moment, and I may be out Friday. Other than that we remain available for questions. I hope to speak to our HWMB again about this issue, but since testing was mentioned in the e-mail, wanted to give you a speedy reply as to where we are at.

Regards,

Tim N.

Tim Noury, Used Oil Program (603-271-6424)

<http://des.nh.gov/organization/divisions/waste/orcb/fms/uomp/index.htm>
<<http://des.nh.gov/organization/divisions/waste/orcb/fms/uomp/index.htm>>;

NH Dept. of Environmental Svc

WMD - ORCB - Used Oil Program

PO Box 95

Concord NH 03302-0095

-----Original Message-----

From: SMITH, ANDREW R Civ USAF ANG 157 ARW/EM

[mailto:andrew.smith.157ang.af.mil <mailto:andrew.smith.157ang.af.mil>;]

Sent: Thursday, June 14, 2012 3:39 PM

To: Linda Brolin

Cc: Noury, Tim

Subject: Answers to follow-up questions-EPA Haz Waste Inspection

Hi Linda,

Sorry it's taken a little while to get back with you. Here are some answers to questions.

- How many full time employees are there? Answer: 450

-What are the operating hours and how many shifts do you have? Answer: Normal operating hours are 0700-1630 hours and for most personnel we have one shift. Aircraft maintenance and flight operations are 24 hours with one regularly staffed day shift and two less staffed after hours shifts.

- Submit all test results to demonstrate that the mixture of used oil and the off spec JP-8 jet fuel pass the requirements established for used oil (see 807.02 and 807.03) for the 1,000 gallon tank, labeled, "used oil for recycle", located at the Ground Fuels Area.

I spoke to Tim Noury who is the NHDES Used Oil Program POC about this. He said he was going to get back with a firm answer on whether or not we are "required" to test the 1,000 gallon tank once we add a 55 gallon drum of JP-8 to it but at this time he does not believe it's necessary because the JP-8 is an allowable substance under the used oil for recycle program, the JP-8 is generated from transfer operations and the JP-8 never leaves our tank and piping infrastructure, and if the contractor who comes to pick up the used oil wants to recycle/resell it the reseller will have to perform a test.

I told my base personnel that I want to voluntarily test the 1,000 gallon tank the next time we add a drum of JP-8 to it but that might not be for several months as it takes quite a while to generate enough JP-8 to fill the 55 gallon drum. Please let me know if you'd like a copy of the test once a test is accomplished and I'd be happy to provide it to you. As of right now we haven't accomplished the test and the State is not "requiring" it yet.

- Send a copy of the complete Final Hazardous Waste Management Plan. At the time of the inspection, we received Chapters 8.0 and 9.0.

-Send a copy of your written inspection program.

Answer: Within the HWMP there are many paragraphs that outline the inspection procedures we use. Please see sections "5.3.1 Weekly Inspections at Central Accumulation Point" and "5.1 SATELLITE ACCUMULATION POINT MANAGEMENT" for the majority of our written procedures.

Please let me know if you need anything else.

//Signed//

Andy Smith

157ARW Environmental Manager

Pease Air National Guard Base, NH

Phone: DSN 852-2336, Comm 603-430-2336

Email: andrew.smith.7@ang.af.mil

-----Original Message-----

From: Linda Brolin [<mailto:linda.brolin@ang.af.mil>]
<linda.brolin@ang.af.mil>;]

Sent: Thursday, June 07, 2012 11:16 AM

To: SMITH, ANDREW R Civ USAF ANG 157 ARW/EM

Subject: Re: A. Smith (Pease ANGB) Email Address

Hi Andy,

Thank you for the current email address. I have some follow up questions and requests from the inspection on 5/21-5/22/12:

- How many full time employees are there?
- What are the operating hours and how many shifts do you have?
- Submit all test results to demonstrate that the mixture of used oil and the off spec JP-8 jet fuel pass the requirements established for used oil (see 807.02 and 807.03) for the 1,000 gallon tank, labeled, "used oil for recycle", located at the Ground Fuels Area.
- Send a copy of the complete Final Hazardous Waste Management Plan. At the time of the inspection, we received Chapters 8.0 and 9.0.
- Send a copy of your written inspection program.
- For the 1 55-gallon container, labeled, "hazardous waste, broken fluorescent lamps, D009," located in the Universal Waste Storage Shed near Building 145.

NH DES allows for handling of broken fluorescent lamps as universal waste, as long as you meet the requirements. See the NH DES Environmental Fact Sheet for Waste Mercury-Containing Lamps, http://des.nh.gov/organization/commissioner/pio/factsheets/hw_document%20s/hw-7.pdf and the universal waste regulations for universal waste lamps, http://des.nh.gov/organization/commissioner/legal/rules_documents/universal%20waste%20regulations.pdf

Thank you.

-----"SMITH, ANDREW R Civ USAF ANG 157 ARW/EM" <andrew.smith.7@ang.af.mil>
wrote: -----

To: Linda Brolin/R1/USEPA/US@EPA

From: "SMITH, ANDREW R Civ USAF ANG 157 ARW/EM" <andrew.smith.7@ang.af.mil>

Date: 06/07/2012 10:59AM

Subject: A. Smith (Pease ANGB) Email Address

Hi Linda,

The email address Dave had on his business card is old. Please use this one. I'm not copying Dave as he only has 3 weeks left before he retires and will no longer work at Pease. Please let me know if you need anything else.

//Signed//

Andy Smith

157ARW Environmental Manager

Pease Air National Guard Base, NH

Phone: DSN 852-2336, Comm 603-430-2336

Email: andrew.smith.7@ang.af.mil <<mailto:andrew.smith.7@ang.af.mil>>
<<mailto:andrew.smith.7@ang.af.mil>>

Attachment 5

#190650

04963 A

8040-00-181-7761

#198195

3M MATERIAL SAFETY DATA SHEET 3M(TM) Foam Fast 74 Classic Spray Adhesive and 3M(TM) Foam Fast 74 Cylinder Spray
Adhesive 03/10/2005



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) Foam Fast 74 Classic Spray Adhesive and 3M(TM) Foam Fast 74 Cylinder Spray Adhesive

MANUFACTURER: 3M

DIVISION: Industrial Adhesives and Tapes

ADDRESS: 3M Center
St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 03/10/2005

Supersedes Date: 05/24/2001

Document Group: 10-3323-2

Product Use:

Specific Use: AEROSOL ADHESIVE

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
DIMETHYL ETHER	115-10-6	35 - 45
PENTANE	109-66-0	20 - 30
NON-VOLATILE COMPONENTS - N.J. TRADE SECRET (T.S.) REGISTRY NO. 04499600-5490P ++	Trade Secret	20 - 30
ACETONE	67-64-1	7 - 13
NAPHTHOL SPIRITS	64742-48-9	1 - 5

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Odor, Color, Grade: orange, sweet/fruity odor.

General Physical Form: Gas Aerosol

Immediate health, physical, and environmental hazards: Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure. May cause target organ effects.

10/5/2012

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

Inhalation:

Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Intentional concentration and inhalation may be harmful or fatal.

May be absorbed following inhalation and cause target organ effects.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting.

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Wash affected area with soap and water. If signs/symptoms develop, get medical attention.

Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.

If Swallowed: Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature

No Data Available

Flash Point

-50.00 °F [Test Method: Tagliabue Closed Cup] [Details:

Flammable Limits - LEL

CONDITIONS: (Propellant)]
1.00 % volume

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Seal the container. Dispose of collected material as soon as possible.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Avoid eye contact with vapors, mists, or spray.

7.2 STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Do not use in a confined area or areas with little or no air movement. Use general

dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment. Do not use in a confined area or areas with little or no air movement. If exhaust ventilation is not adequate, use appropriate respiratory protection. Provide ventilation adequate to control vapor concentrations below recommended exposure limits and/or control spray or mist.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Safety Glasses with side shields.

8.2.2 Skin Protection

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Nitrile Rubber, Polyvinyl Alcohol (PVA).

8.2.3 Respiratory Protection

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
ACETONE	ACGIH	TWA	500 ppm	Table A4
ACETONE	ACGIH	STEL	750 ppm	Table A4
ACETONE	OSHA	TWA, Vacated	750 ppm	
ACETONE	OSHA	TWA	1000 ppm	Table Z-1
ACETONE	OSHA	STEL, Vacated	1000 ppm	
DIMETHYL ETHER	AIHA	TWA	1000 ppm	
DIMETHYL ETHER	CMRG	TWA	1000 ppm	
NAPHTHOL SPIRITS	3M	TWA	100 ppm	
NAPHTHOL SPIRITS	CMRG	TWA	300 ppm	
PENTANE	ACGIH	TWA	600 ppm	
PENTANE	OSHA	TWA, Vacated	600 ppm	
PENTANE	OSHA	STEL, Vacated	750 ppm	
PENTANE	OSHA	TWA	1000 ppm	Table Z-1

VAC Vacated PEL: Vacated Permissible Exposure Limits [PEL] are enforced as the OSHA PEL in some states. Check with your local regulatory agency.

SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Odor, Color, Grade:	orange, sweet/fruity odor.
General Physical Form:	Gas Aerosol
Autoignition temperature	No Data Available
Flash Point	-50.00 °F [Test Method: Tagliabue Closed Cup] [Details: CONDITIONS: (Propellant)]
Flammable Limits - LEL	1.00 % volume
Boiling point	Not Applicable
Vapor Density	>2.00 [Ref Std: AIR=1]
Specific Gravity	0.725 [Ref Std: WATER=1]
pH	No Data Available
Melting point	No Data Available
Solubility in Water	Nil
Evaporation rate	2.00 [Ref Std: ETHER=1]
Hazardous Air Pollutants	0 % weight [Test Method: Calculated]
Volatile Organic Compounds	Approximately 66 % weight
Percent volatile	Approximately 78 % weight
VOC Less H2O & Exempt Solvents	Approximately 563 g/l [Test Method: calculated SCAQMD rule 443.1]
Viscosity	Not Applicable

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: Heat

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

Substance	Condition
Aldehydes	During Combustion
Hydrocarbons	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Ketones	During Combustion

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.
The facility should be equipped to handle gaseous waste.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number	UPC	ID Number	UPC
62-4991-0026-1		62-4991-0047-7	
62-4991-0930-4	00-21200-31320-2	62-4991-0931-2	
62-4991-4930-0	00-21200-65055-0	62-4991-4935-9	00-00000-00000-0
62-4991-4936-7	00-21200-82242-1	62-4991-4937-5	00-21200-82242-0
62-4991-4938-3		62-4991-7830-9	00-21200-49157-3
62-4991-8830-8	00-21200-49158-0	62-4991-8835-7	00-21200-49158-9
CS-0406-2031-5		CS-0406-6932-0	

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

This material contains a chemical which requires export notification under TSCA Section 12[b]:

<u>Ingredient (Category if applicable)</u>	<u>C.A.S. No</u>	<u>Regulation</u>	<u>Status</u>
PENTANE	109-66-0	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable
ACETONE	67-64-1	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable

STATE REGULATIONS

Contact 3M for more information.

CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

Contact 3M for more information.

Additional Information: ++ synthetic polymers, resins, filler, antioxidant, rosin and u.v. absorber. Not hazardous according to Canadian WHMIS criteria. Non-WHMIS controlling.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 2 Flammability: 4 Reactivity: 1 Special Hazards: None
Aerosol Storage Code: 2

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

No revision information is available.

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DATE OF INSPECTION:
May 22, 2012

[illegible]